



## JUST A NOTE....

You apparently are interested in what TEL has to offer or you wouldn't have responded to the advertisement that brought you what you are now reading. Starting in January—TEL will include a complete telephone engineering course in monthly chapters beginning with the basics; TEL will answer readers questions and publish letters with greatest potency; TEL will compile an information exchange from readers tips listing the phone company's test code numbers and routing now in use; TEL, among many other feature articles, will include in each issue Current News Items, Plans, Illustrations, Stories, History, Comics, Games, Projects, and the secrets Ma Bell's toll not.

Telephone Electronics Line is the only publication of its kind, revealing the demanding secrets of the nationwide telephone monopoly. TEL is supported entirely by each and every one of its subscribers and therefore contains absolutely no advertisements. If the TEL staff were to convince you to sell just one subscription to a friend, a neighbor, a relative, your employer or employee, a teacher, or just about anyone for that matter, you would be holding a booklet with twice as many pages and the knowledge of a dozen telephone company employees.

If you have not already signed up for a subscription or would like to give a friend a New Years present, you still have time to send in the form that appears on page 10 for the January issue. It's not too late to receive all the 1975 issues of Telephone Electronics Line—delivered to your door each and every month of the year by an authorized agent of the U. S. Government.

# MERRY CHRISTMAS

Hoping this issue reaches you in good spirits, the staff of Telephone Electronics Line wishes its readers the greatest of a New Year and a Merry Christmas.



## Published Monthly

Telephone Electronics Line, December 1974, Volume 1, Number 2, Published monthly at 22035 Burbank Blvd., Woodland Hills, CA 91364. One year subscription for U.S. Postal subscribers \$4.00. Third Class Bulk Rate Postage paid for in cash at Agoura, CA 91301.

Telephone Electronics Line, and TCA, Trade Marks Registered.

Telephone Electronics Line is published monthly by Teletronics Company of

America, 22035 Burbank Blvd., Woodland Hills, CA 91364. Teletronics Company of America also publishes Community, Technical Journal, and Communications Exchange.

Editorial contributions should be addressed to: Editorial Dept., Teletronics Electronics Line, P.O. Box 3496, Hollywood, CA 90028. Editorial contributions must be accompanied by return postage and will be handled with reasonable care—however, TCA assumes no responsibility for return or safety

of any item sent to us. All contribution rights become property of TCA.

Postal forms 3547 and 3573 should be addressed to: Teletronics Electronics Line, P.O. Box 3496, Hollywood, CA 90028. Subscriptions should be addressed to: Teletronics Electronics Line, P.O. Box 3450, Hollywood, CA 90028. Please allow at least four weeks for change of address. Include your old address, as well as new—enclosing, if possible, an address label from a recent issue.

Telephone Electronics Line, P.O. Box 3496, Hollywood, CA 90028. Subscriptions should be addressed to: Teletronics Electronics Line, P.O. Box 3450, Hollywood, CA 90028. Please allow at least four weeks for change of address. Include your old address, as well as new—enclosing, if possible, an address label from a recent issue.

Telephone Electronics Line, P.O. Box 3496, Hollywood, CA 90028. Subscriptions should be addressed to: Teletronics Electronics Line, P.O. Box 3450, Hollywood, CA 90028. Please allow at least four weeks for change of address. Include your old address, as well as new—enclosing, if possible, an address label from a recent issue.

**COPYRIGHT © 1974 BY TELETRONICS COMPANY OF AMERICA. LOS ANGELES, CALIFORNIA 90028. PRINTED IN THE UNITED STATES OF AMERICA.**  
ALL RIGHTS RESERVED. REPRODUCTION OR USE, WITHOUT EXPRESS PERMISSION, IN ANY MANNER IS PROHIBITED.

## Editorial

Editor: Mary Harris had her students harass homophobes on the telephone, as if Peter Piper picked a peck of peop-  
ple names and punished them with a poor time.

The academic object was to discover whether innocent victims answer hostility with hostility, according to Behavior Theory. University of New Mexico graduate student was given instructions to make random wrong number phone calls, harass answers and then record results.

Petarded people lose patience, learned Ms. Harris, a funding. Friend Burt Prejursky admits as much in the same issue. Sometimes I think educators taking surveys on hostility and aggression raise the ambient levels of hostility and aggression simply by adding to the natural static abroad in our land.

Other observations of the obvious from the Albuquerque experiment were that victims gave male callers more lip than female, turning surly sooner and cutting off the conversation earlier. That's because males make more mischief on the telephone; who ever heard of an obscene caller with a soprano voice?

What the best didn't examine was the calling end of the line, even an honest mistake, want to punish the innocent person on the receiving end?

I've had an extraordinary experience along these telephone lines because I have one phone reserved for business calls. When that phone rings during non-business hours, I'm almost positive it's a wrong number call.

But to play it safe, I always play polite; I pick up the phone with a fairly friendly hello. "Morris?" a voice may say. "No," I'll answer, "no Morris here, you must have a wrong number."

Almost half the time the errant caller will then say, "Who is this?" And I will then say, who are you? Only idiots tell imperfect strangers their names.

The person who dialed the wrong number invariably becomes angry when I refuse to identify myself. Maybe the caller is angry at himself or herself for having lost a last dime, perhaps, or for have been handed a mistaken message. But the anger is turned outward, at me. As if I had no rights to privacy now that Morris the mystery isn't available.

The more polite Morris-seekers will ask, "What number is this?" And I usually say, sorry, its unlisted, because if the caller is a crank I don't want him cranking right back.

If educator Harris were really doing original research, she'd have students trying to figure out why people who dial wrong numbers take their frustrations out on wrong victims. Their behavior is the interesting, infantile response—like the small child who blames a table for being there when a baby stubs a toe on it.

People don't behave that poorly in face-to-face situations. Someone who mistakenly slaps someone else on the back apologizes profusely for imposing on the wrong party. Such a someone may be embarrassed—and afraid of a punch on the nose.

The telephone is different; it prevents physical aggression and permits anonymous aggression. The victim can't fight back, except verbally. So the first person to make a mistake makes matters worse by adding insult to interruptive injury. The telephone is a perfect disguise for breaking and entering.

Don't call me with your inquiries, Ms. Harris, and I won't call you. Morris don't live here anymore and I respond poorly to academic provocation.



By David Raes

The Ramparts article was of a highly controversial nature because it published not only information about the "Black Box" or "Mute" as it is known, described how to build a "Black Box" and, in addition, this easily constructed device allows anyone to receive telephone calls free at no cost to the caller. All newspaper copies of this issue were withdrawn at the request of the American Telephone and Telegraph company, and it has, as a result, developed into a cult item. The article, in fact, is a publication actually written by a member of the Confidential Informant Code, the state in which the magazine publishers are located.

Ever since its introduction, the credit card has developed the greatest notoriety as a means for committing toll fraud. The acquisition of someone's credit card number may mean that you are in for a long and costly battle. If you are not sure, call and ask for the toll-free number. If you are sure, call and ask for the toll-free number. If you are sure, call and ask for the toll-free number.

Many of you probably know of these loop arounds. For those who don't, I must first thank them. The most effective way of doing this is by sending a set of numbers with characteristics similar to those of loops. Most loops end in suffixes which are truly telephonic, company numbers. Tel. Co.'s favor suffixes with "11," "00," or "10" appearing repeatedly. Here is a set of known loop suffixes and specific areas. It is by no means complete. We must therefore appreciate any contributions anyone might make with respect to improving and enlarging our list.

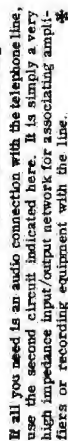
2024-01-17 20:41:21

I was once asked jokingly by a Telephone Enthusiast, "If I can plug anything I want into my power line, why can't I plug anything I want into my phone line?" Truly, the phone company in most cases frowns upon the practice of hooking up large due to the high cost of such a project.

one's own telephones, answering devices, and assorted other telephone accessories directly to the telephone lines. In the case of attachments such as automatic answering de-

[illegible]

In most cases, the connection of customer-owned equipment directly to Tel. Co.'s lines are preferable for such a solution. The reason for this is that the Tel. Co. has the right to refuse the connection of customer-owned equipment for the purpose of associating customer-owned equipment with the telephone network or "toll-free" lines. These devices are called "connecting arrangements" or "couplers". These devices are designed to protect Tel. Co. lines from blunders on the part of the customer's equipment which may cause protector



than to rent a complicated and often annoying arrangement. In order to do this safely you must follow some important guidelines.

Your most important concern when violating tariffs is to avoid detection by Tel. Co. authorities. In most cases, the same company will not discover your misdeeds whether you make it difficult for them or not. The fact that so many unauthorized extension telephone lines exist in this country makes it difficult to detect this behavior. One of the most common practices used in making extension telephones undetectable is to disconnect the bell. Thus, no extra bell impedance is present on the line due to the extension. By simply disconnecting the ringer (bell) in your telephone by removing the wire or wires from the bell that connect to the network (the connecting block with many screw terminals on it). This will effectively stop the ringing (and possibly) the detection of the telephone when in the "on-hook" condition.

In the Bay Area (415 NPA) a recent effort has been made by Bell System authorities to counteract the extreme number of illegitimate extension telephones hooked up by customers. Most of these customers have avoided detection by disconnecting the ringers in these extensions. A new process developed by Bell involves the measurement and recording of the impedance of everyone's telephone line. This information is logged down. Then, a year later, the same measurements are made and recorded. The measuring devices used are extremely accurate and can discern the difference in impedance caused by even extra lengths of wire. Thus, if a discom customer hooks up an extension phone, even with the bell disconnected, the phone company will detect the difference.



TELEPHONE ELECTRONICS LINE  
Published Monthly By Teletronics Company Of America

100% 100% 100%

**JACK KIRKMAN**  
Executive Publishing Director

DAVID REES

**DAVID REES**  
**Technical Director**

**Communications Consultant**

DAVID AUTOVON DONALD ST

ROBERT KLIEN  
JOHN REY

TEL Staff Writers

Editorial and main office at:

222035 Burbank Blvd - Woodland Hills, CA 91364

(213) 884-1129

Technical research library in Los Angeles at:

1817 North Vista Street, Los Angeles, CA 90046

(213) 851-2411

## How to handle obscene telephone company employees

By Donald Simmons

I have often found business office representatives are less than helpful in executing their duties. For instance, it was a complete chore to have different types of connecting arrangements such as a QRT Audio Cycler ordered for my telephone line. Some representatives didn't seem to know what I was talking about (lack of education in their field) while others seemed deliberately bent on causing problems for me. Once, I was told by a service representative that I could not have a single plug-and-jack arrangement. When I demanded to know the section, number, and page of the tariff which states this, he told me to hold on appearing 15 minutes later to tell me that I could have the arrangement after all. Remember, if a telephone company representative tells you that you cannot do something, demand to know what tariff section stipulates it. Thus, you can verify it yourself by looking it up in the tariffs which must be made available for public inspection by your telephone company.

Many people express the fear that the telephone company "taps" or monitors their telephone conversations. For the most part, these fears are groundless, based mostly on plenty of telephone line static and an overactive imagination. If you really believe that you may be monitored, stop and ask yourself: "What reason would the Tel. Co. have to monitor me which would be worth their time and trouble?" In most cases, no good reasons exist. It is true, however, that a number of cases of monitoring by Tel. Co. employees that are authorized neither by the courts nor by Tel. Co., one of which I was directly involved in.

In my case, I was speaking with a friend on a MMU call, when the line suddenly became disrupted. My side-tone balance was distorted and the line was increased considerably. Suddenly, I heard dial tone on the line, yet I was still connected with my party. Without hanging up the phone, I used my other line to dial a long number. I then later associated with the test band in my central office to check if my aw-itchman was causing the trouble (deliberately). My suspicions were confirmed when I was abruptly connected to my other line and could hear my friend speaking through test band.

When I called the switchman by dialing the switchroom number, the switchman admitted to monitoring my line, saying he had a court order (this was not so) and accused me of being a "black pirate". He called me a few choice things which I didn't write here and threatened to come to my house and "do something about it personally".

I filed a formal complaint with the California State Public Utilities Commission which investigated the matter thoroughly. When they pressed for answers, the Pacific Telephone Company admitted that my line had been illegally monitored, but said that it was done by a switchman without their knowledge. Little more was done after this, however, had I wished to press charges, the Tel. Co.'s admission of the crime would have been as good as gold in gaining a conviction.

Another case involved a friend who works for Pacific Telephone. He said that the technicians in his office often ran connections from people's lines to a loudspeaker and listened in for entertainment. Though monitoring lines for repair purposes is legal, this practice hardly strikes me as a part of maintenance.

If you have any legitimate grievances with the phone company, your best bet is the Public Utilities Commission in your state. Really, they're there to protect your interests and can (at times) be very hard on the telephone company on behalf of telephone subscribers. \*

## What you can get for the price of a dime (which is refundable)

By David Rees

Due to the recent increase in pay phone vandalism, both Bell System and independent telephone companies have been attempting to build a better pay telephone, one which refuses to be broken into or ripped off. Some of the newer pay telephones are truly marvels of armor-plated engineering with a little opportunity to acquire the coinage held within its strong box.

Even with all those anti-vandalism features pay telephones are still vulnerable to attack. There are a larger multitude of tricks which may be employed to acquire the pay telephone's service without depositing any money. For the most part, these methods require no external devices of your own, but merely the use of your hands and mouth (and sneaky brain).

## Letters from the reader

Gentlemen:

I just received my first issue of TEL (Nov.) and it is with regret that I express great disappointment with the utility of its contents. The main article, concerning TSPS systems, is a reasonable explanation of the system logic involved in TSPS but I ask you, WHERE IS THE ELECTRONICS?

Frankly, I resent paying for "SECRETS OF YOUR TELEPHONE" and "TSPS SYSTEMS" UTILIZED FOR THE PUBLIC when the articles are nothing more than PR handouts and frankly unimaginative cartoons. As you folks are also merchandising numerous devices designed to be interconnected with telephone lines, how about information on how Ma Bell detects foreign devices on her lines? Southern Bell on Tulsa is rapidly going ESS, and what about detection of the tamper-proof systems extant for detection of the Bell systems use telephone. While many east coast Bell systems use a sample DC current flow sensing system to detect an answered phone or lifted handset, the Tulsa system utilizes both AC and DC sensing. With low level AC detection signals covering the frequency range needed for speech, or at least so it appears, and a sample DC current flow sensing system, and indicates the extent that Bell will go forward the simple-minded "Black Box" devices which many people use to try to avoid ID billing. These

## THE AUTOMATIC WIRETAP are your telephone conversations really private?

By David Autovon

Most of us have at one time or another become impatient with a constant busy signal and made an "emergency call" to the party we desire to reach. This type of call is made through the operator only. The operator interrupts the conversation by connecting to the telephone line desired and requesting they release the line. Simple as it sounds, this action requires the operation of an entire switching system, and trunking and operator network designed specifically for emergency calls. It is called the verification system.

On most standard operator cord switchboards, a set of jacks is set aside for emergency calls. These jacks represent the terminations of "no-test" or "verification" trunks. Each operator may use these trunks for emergency calls within her office or exchange. To interrupt a given call, the operator must plug into the appropriate no-test trunk and key the telephone number of the desired party on her multifrequency keyset, preceded by KP (key pulse) and followed by ST (start). She is then connected into the conversation by central office equipment, after which she may inform the party of the emergency call.

## Debugging The Buggers

By Robert Klien

In a recent article, Telephone Electronics-Line made a noble attempt to explain the basics of TSPS (Traffic Service Position System). Now, we will explore some of the lesser known phenomenon of TSPS. Specifically, we will deal with the use of verification trunking as related to TSPS.

Did you ever consider how verification is handled for in-office TSPS lines? Since there are no verification trunks that are associated or terminated directly on a TSPS type console, the TSPS operator must depend on special routing codes to perform a verification check for an "OD Condition". Out-Of-Order Condition resulting from an ROH (Receiver Left Off Hook), a CPH (Called Party Hold), or simple emergency announcement on a line in use.

THE SCRAMBLER

This special circuit, dubbed "The Garbler" or "Garb" by Pacific Telephone people, has many options and special features. As a working example, we refer to the 415 NPA (Number Plan Area), where "Garb" is now in use. When the customer requests an OD check, the TSPS operator accesses a free loop (by depressing the "ACS" key on her console) and keys "027\*7D" - 7D being the 7-digit number to be tested. When the ST key is pressed, the Garb unit is activated, causing a special trunk to be opened to the central office in which the requested phone number is located. After the 7-digit number is keyed, the special scrambler equipment selects the line called for through a no-test circuit and connects. If the line is not in use, a recorder (120 lbs) busy signal is received to indicate this condition. If the line is in use (as a result of an OD condition, conversation, etc.), the operator will hear a steady tone (dial tone), or garbled voice-range frequencies to indicate a silence, or garbled voice-range frequencies to indicate a conversation in progress. Depending on the result of the OD test, the customer will be informed either that the line requested is OD or in use.

### ACTUAL VOICE VERIFICATION

If, when informed that the line is in use, the customer desires an urgent or emergency line verification, the operator follows this procedure: She re-dials through the Garb circuit, and when voice-type frequencies are received, depresses her forward-ring key. This causes the Garb equipment to drop the voice-scrambler circuit (provided on a one-way talk arrangement) and connect directly through the no-test trunk to the requested line, causing a two-way link between the requested phone line and the operator. As a security precaution, a click is produced on the line in question when it is being tested for OD, and a louder click accompanied with a marked decrease in trunk transmission qualities is produced when it is actually verified. The TSPS operator now announces the verification, and normal verification procedures are followed. When the operator releases the Garb trunk, the verified line is restored to normal operating condition, and the trunk is accordingly released from the TSPS board.

As a note on bull: when this type of verification is used, the full operator follows the same procedure except:

A - The 3-digit access code may be depressed for a two-way verification circuit.

B - The yellow ring key may be depressed for a two-way verification circuit.

Already, this system, which is called the Garb system, is now in widespread use in places such as 914, 415, and 213. Perhaps one of the main reasons for establishing this system was to lighten security of telephone lines. 7-digit subscriber verification numbers that ring into verification operators are simple to use for illegal purposes, whereas verification numbers are specialized equipment, a particular group of trunks or test trunks, and a specific knowledge of the access codes. Special requirements of the system you are accessing to specifically use the Garb system. If you know of such information, and can add to it, then please drop us a line. Any suggestions and/or corrections would be greatly appreciated. When writing, please refer to the name of the article which you are questioning or commenting on, the Volume and Issue No., or date of publication. \*



**dime** continued from page 7

is based on her experience and familiarity with the equipment and how busy or distracted she is at the time of your call.

Many telephone companies have had trouble with subscribers who place collect calls to pay telephones. This method of avoiding charges works only if the operator is under the impression that the pay-phone number she is calling is a subscriber type telephone. An example of such a scheme might proceed as follows. An individual on vacation in Oregon wishes to speak to a friend in Los Angeles without paying the toll charge. By placing his call person-to-person he collect to his own name when calling the L.A. number, he can signal the party there that he wishes to receive a call back. The called party, by stating that the desired party is not at home and that he will return the call when he gets back, he can usually acquire the pay-phone number from the operator. The L.A. party may then make a collect call back to the pay-phone, and the Oregon vacationer will accept charges without having to insert money into the coin slot. This works most dependably when the fourth digit of the pay-phone is not a "9" (in some areas). The operator is reassured if you answer with a business name such as "Smith Plumbing Supplies" or "Western Air Lines," information Desk". Any phrase such as these will do, however, be certain that it does not imply a pay telephone in any way. Due to a recent increase in the number of collect calls to pay-phones, many telephone companies have initiated campaigns to remove the bells from their pay telephones.

Another method takes advantage of a lack of communication between the operators. It is used only for the completion of free overseas calls, and its workability is not common to all telephone systems. The procedure is as follows: Go to a pay telephone and dial the operator. When she answers, tell her you wish to place a call to information in Britain. She will then key the number of the overseas operator located in the United States whose job is to handle all overseas calls. Your operator will then tell the overseas operator that you are calling from a pay telephone and leave the line. You tell the overseas operator that you wish to speak with information in London. She will dial the number and leave the line. When she leaves the line, flash the hookswitch (hang up for about a second). You should then be re-ringing into the overseas operator. When she again answers (it will usually be a different operator), she will not know that you are calling from a pay-phone or what the number is. Tell her the overseas number you wish to speak with, and a fictitious number from which you are supposedly speaking. She will then complete the call, billing it to the number you gave her. Make sure the person or business you are calling has no record of you or your call.

## Next month:

Current News Items  
Illustrations  
Projects  
Games  
History  
Comics  
Code Numbers  
Stories  
Facts

## PHONE booth special

## You can try it too!

Try calling a long-distance number (such as directory assistance in another city) and whispering off, clearing the trunk. At precisely midnight when everyone is calling everyone else) on New Year's Eve, someone's bound to jam into the trunk you're on. This will happen when you maintain a constant 2600 Hz on the trunk. When another person's trunk steers yours, he will be charged for the call when you release the 2600 Hz.

By Jack Kravitz

## Call Santa this year and wish him the best!

Yes, it's that time of year again when wee little ones and grown-ups alike prepare their Christmas gift-lists for St. Nicholas. Every December millions of people across the globe compose elaborate lists of toys, bicycles, games, all kinds of presents and everything else imaginable for friends and relatives.

Unfortunately however, most of these goodies will never be delivered (let alone reach Mr. Nicholas) due to the heavy holiday mail. During the last week of November and all through December the postal kings urge mail order houses and large companies to hold back on their mailings. Meanwhile, everyone else is mailing thousands of Christmas cards to everyone they can think of, reminding them to have a Merry Christmas. And yet, have you ever thought of giving Santa a call on the telephone? Sound absurd? Try it....

A few weeks ago, someone suggested to phone Santa Claus as a joke. I bet the operator thought it was some joke when she held my line after trying to get her to place a call to the North Pole. After convincing her supervisor that I was for real, and indeed, wanted to speak with Santa Claus, she transferred the call to her manager. Quickly, the manager and I became friends when she learned all I was trying to do was to get my Christmas orders in early for the boys. She apologized for her operators' conduct at my attempt to get into the area code place the call originally, but was unable to find one herself.

**IMPORTANT** TELEPHONE ELECTRONICS LINE IS PUBLISHED FOR INFORMATIONAL PURPOSES ONLY. ITS PUBLICATION IN NO WAY CONSTITUTES A CONSPIRACY ON THE PART OF THE PUBLISHERS OR ORGANIZERS OF TELEPHONE ELECTRONICS LINE TO INTENTIONALLY DEPRIVE ANY COMMON CARRIER OR ILLEGALLY INTERFERE WITH COMMUNICATIONS OF ANY FORM. NOR DO WE ENDORSE OR SUPPORT ANY ILLEGAL IMPLICATIONS OR ACTIONS BASED ON OR DERIVED FROM THIS PUBLICATION OR ITS CONTENTS.

continued from page 4

AREA CODE	STATE	LOOP ENDINGS
415	CA	0044-0045
416	ON	1188-1187
503	OR	1000-1001
514	QUEBEC	1194-1195
515	IA	0005-0006
609	NJ	9929-9930
617	MA	9907-9908
702	NV	9923-9924
714	CA	0044-0045
716	NY	1118-1119
717	PA	0091-0092
914	NY	9905-9906
		9978-9979
918	OK	9932-9933

Sometimes it is possible to find the sequence or style of last number your office favors by getting a tour of the Tel. Co. facilities, and keeping your eyes open inside the central office. Try dialing variations of those Tel. Co. last numbers you may already know. You will know the loop number by the following characteristics. Every loop has:

A - One side enters into a 1000 cycle tone  
B - When the other side is called, the 1000 cycle tone on the first side stops and the two are connected.

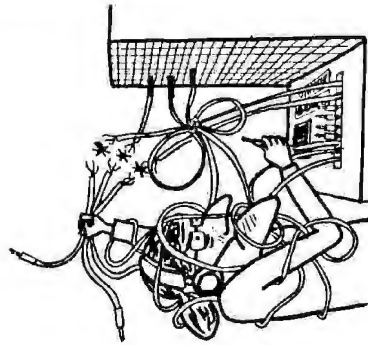
Good Luck!

We now come to the lines. The lines are long distance trunks (circuits) which are rented by the Tel. Co. to large corporations (they are so expensive that only big corporations can afford them). They may extend across the city or across the country. Essentially, they allow a corporation in New York for instance, to have a Los Angeles telephone number. Thus, when a Los Angeles party calls the L.A. tie line number, the call is answered in New York. Usually, the person who answers is a switchboard operator who will connect the caller to any number in the city where she is located. This she will do because the number is supposedly known only to authorized personnel. The duty sure way to get these numbers is to

# Pathetic Telephone



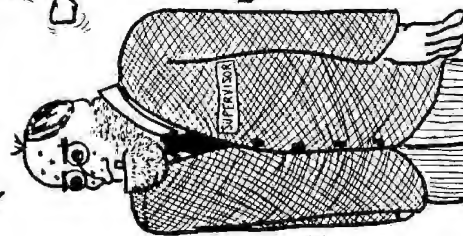
OUR EXTREMELY WELL-TRAINED TECHNICIANS ARE ALWAYS SAFE AND CAREFUL IN SOLVING CENTRAL OFFICE PROBLEMS.



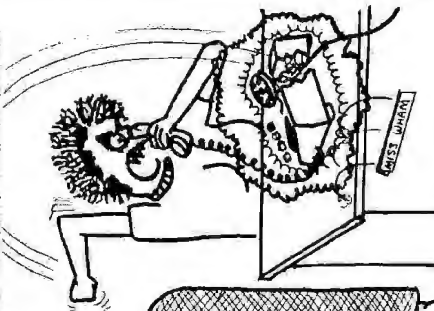
OUR OPERATORS ARE EXPERIENCED AT THEIR JOBS TO AVOID FOUL-UPS AND PROVIDE THE CUSTOMER WITH FAST, EFFICIENT SERVICE.



OUR BUSINESS OFFICE PERSONNEL KEEP NEAT AND ACCURATE RECORDS OF ALL SERVICE AND ARE ALERT TO QUICKLY SOLVE YOUR PROBLEMS.



IN ADDITION, THEY ARE ALWAYS PLEASANT AND TRY TO SMILE AT ALL TIMES.



PLUS + THEY ARE COURTEOUS AND PATIENT EVEN WHEN PROBLEMS ARE COMPLEX OR ANNOYING.

*Duff*

member of the **SMELL SYSTEM**

Start off the New Year  
with a  
subscription to **TEL**



**If it's TEL, it's swell!**

Telephone Electronics Line will accept payment by check, money order, postage, cash, domestic or foreign. Due to size of circulation at this time, full payment must accompany subscription order which is refundable if not fully satisfied. Make all documents payable to TEL for \$3.00.

NAME \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_  
ZIP CODE \_\_\_\_\_ TELEPHONE (not necessary) \_\_\_\_\_